

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Patent Application of

Marshall MILES

Serial No.: 10/729,183

Filed: December 4, 2003

For: SPLIT-PACKAGE AC ADAPTER

Confirmation No.: 2389

Date: June 24, 2008

Group Art Unit: 2838

Examiner: B.Q. Vu

VIA EFS-WEB

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

APPEAL BRIEF PURSUANT TO 37 C.F.R. §1.192

Sir:

This Appeal concerns the correctness of the Examiner's final rejection dated February 1, 2008 in connection with the above-identified application, the Notice of Appeal for which was filed on April 24, 2008.

I. REAL PARTY IN INTEREST:

The real party in interest is the assignee Bel-Fuse, Inc.

II. RELATED APPEALS AND INTERFERENCES:

The applicants, the assignee and the undersigned attorneys are not aware of any related appeals and interferences.

III. STATUS OF CLAIMS:

Claims 1-9 stand rejected under 35 U.S.C. §102(a).

IV. STATUS OF AMENDMENTS:

No Amendments were filed after Final Action.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Referring to Figs. 1 and 2, Applicants' invention, as set forth in independent claim 1, is directed to a power adapter 1 comprising a first housing 8 (p. 5, line 6) and a second housing 18 remote from the first housing 1. An AC input receptacle 2 (p. 5, lines 6-7) is provided in the first housing 8 and a voltage converting circuit 6 is enclosed within the first housing 8 and electrically connected to the AC input receptacle 2, the voltage converting circuit 6 converting input AC power into a DC voltage. A voltage regulating circuit 16 (p.3, line 28) is electrically connectable to the voltage converting circuit 6 and is enclosed within the second housing 18, the voltage regulating circuit 16 maintaining and outputting the DC voltage from the voltage converting circuit 6.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL:

Whether claims 1-9 are rejectable under 35 U.S.C. §102(a) as being clearly anticipated by Youn et al (U.S. Patent No. 6,459,604).

VII. ARGUMENT:

Claims 1-9

Claims 1-9 are rejected under 35 U.S.C. §102(a) as being clearly anticipated by Youn et al (U.S. Patent No. 6,459,604). Applicant respectfully traverses this rejection.

Applicant's invention, as set forth in claim 1, is directed to a power adapter comprising a first housing and a second housing remote from the first housing. An AC input receptacle is

provided in the first housing and a voltage converting circuit is enclosed within the first housing and electrically connected to the AC input receptacle, the voltage converting circuit converting input AC power into a DC voltage. A voltage regulating circuit is electrically connectable to the voltage converting circuit and is enclosed within the second housing, the voltage regulating circuit maintaining and outputting the DC voltage from the voltage converting circuit.

In contrast, in Youn, the first housing essentially encloses a complete ac-dc adapter which includes ac-dc rectifier, isolated dc-dc converter, and control circuitry. The second housing encloses a complete non-isolated dc-dc adapter which converts the low dc voltage generated by the first housing to a desired low output voltage. In the present invention, only a few components contained in the front end stage of a typical ac-dc enclosed in the first housing. The second housing encloses the voltage regulating circuit which converts the high dc voltage generated by the first housing to a desired low output voltage.

By providing two housings and placing the AC connectors and the AC/DC converter in one housing and placing the voltage regulators in a second housing, Applicant provides a power adapter which has a relatively simple structure, a high efficiency and improved output performance. Moreover, because the first housing need only contain the voltage converting circuit, the power adapter has increased thermal performance and improved electromagnetic interference characteristics.

Additionally, since the power converter circuit electronics are separated from the input connector style (for example, 110V_{AC}, 220V_{AC}), which vary by geography throughout the world, production costs can be reduced because each of the input connectors and the voltage regulating circuits can be separately manufactured and then matched to form the desired power adapter. For example, with the prior art power adapters, if there were five different input connector styles and 5 different output voltages required, 25 different connectors would have to be produced (5 input connectors X 5 required output voltages). With the present power adapter, the five different input connectors could be produced separately from the five voltage regulating portions. Then the desired input connector style can be matched to desired voltage regulating portion. Thus, only 10 separate items need be manufactured (5 input connector styles + 5 voltage regulating portions).

In view of the foregoing it is respectfully submitted that claim 1 is clearly not anticipated by Youn.

Claims 2-9 are dependent either directly or indirectly from claim 1 and are therefore patentable for the same reasons as well as because of combinations of the features set forth in these claims with the features set forth in the claim(s) from which they depend.

CONCLUSION:

In view of the foregoing, it is respectfully submitted that claims 1-9 are clearly patentable over Youn et al,. Accordingly, it is respectfully requested that the decision of the Examiner finally rejecting claims 1-9 be reversed and that this application be passed to issue.

Credit card payment for the required filing fee in the amount of \$500.00 is submitted via EFS-Web.

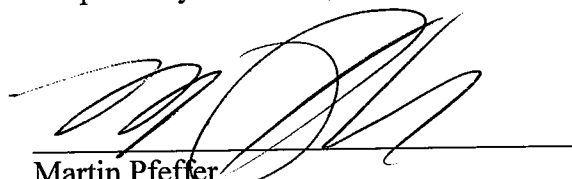
If this Appeal Brief is filed after a shortened statutory time period has elapsed and no separate Petition is enclosed, the Commissioner of Patents and Trademarks is petitioned, under 37 C.F.R. §1.136(a), to extend the time for filing a response to the outstanding Office Action by the number of months which will avoid abandonment under 37 C.F.R. §1.135. The fee under 37 C.F.R. §1.17 should be charged to our Deposit Account No. 15-0700.

In the event the actual fee is greater than the payment submitted or is inadvertently not enclosed or if any additional fee during the prosecution of this application is not paid, the Patent Office is authorized to charge the underpayment to Deposit Account No. 15-0700.

Respectfully submitted,

THIS CORRESPONDENCE IS BEING
SUBMITTED ELECTRONICALLY
THROUGH THE PATENT AND
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SYSTEM ON JUNE 24, 2008

MP/jh



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Attachment: Appendix of the claims

APPENDIX OF THE CLAIMS

1. A power adapter comprising:
 - a first housing;
 - a second housing remote from the first housing;
 - an AC input receptacle provided in the first housing;
 - a voltage converting circuit enclosed within the first housing and electrically connected to the AC input receptacle, the voltage converting circuit converting input AC power into a DC voltage; and
 - a voltage regulating circuit electrically connectable to the voltage converting circuit and enclosed within the second housing, the voltage regulating circuit maintaining and outputting the DC voltage from the voltage converting circuit.
2. The power adapter according to claim 1, further comprising an electrical device connector electrically connectable to the voltage regulating circuit.
3. The power adapter according to claim 2, further comprising:
 - a means for connecting the voltage converting circuit to the voltage regulating circuit; and
 - a means for connecting the voltage regulating circuit to the electrical device connector.
4. The power adapter according to claim 3, wherein:
 - the means for connecting the voltage converting circuit to the voltage regulating circuit comprises a first cable; and
 - the means for connecting the voltage regulating circuit to the electrical device connector comprises a second cable.
5. The power adapter according to claim 4, wherein the first cable runs from the first housing to the second housing and the second cable runs from the second housing to the electrical device connector.
6. The multiple output power adapter according to claim 1, wherein the voltage converting circuit includes a rectifier.

7. The multiple output power adapter according to claim 6, wherein the rectifier is a full-wave rectifier.

8. The multiple output power adapter according to claim 7, wherein the full-wave rectifier is a bridge rectifier.

9. The power adapter according to claim 1, wherein the voltage converting circuit includes an EMI filter and the voltage regulating circuit includes a transformer.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.